This listing of claims will replace all prior versions and listings of claims in this application:

a.) Listing of Claims

1. (cancelled)

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (currently amended) A process for manufacturing a semiconductor laser system, the process comprising:

installing a semiconductor chip in a package on a bench;

inserting a polarization-maintaining optical fiber through a fiber feedthrough into the package;

securing an endface of the optical fiber to the bench ~~package~~ to receive light generated by the semiconductor chip;

after the step of securing the endface to the bench, detecting a polarization extinction ratio of light transmitted through the fiber from the semiconductor chip; and

axially rotating the endface of the fiber relative to the bench to improve the polarization extinction ratio.

7. (original) A process as claimed in claim 6, further comprising aligning the endface to the semiconductor chip.

8. (original) A process as claimed in claim 7, wherein the step of aligning the endface to the semiconductor chip comprises energizing the semiconductor chip and monitoring a magnitude of light coupled into the optical fiber.

9. (currently amended) A process as claimed in claim 8, wherein the endface is secured to the ~~package~~ bench prior to the aligning step, the aligning step comprising plastically deforming a mounting structure to which the optical fiber is secured.

10. (original) A process as claimed in claim 8, wherein the endface is secured after the aligning step.

11. (original) A process as claimed in claim 7, wherein the step of aligning the endface to the semiconductor chip comprises

energizing the semiconductor chip and monitoring a magnitude of light coupled into the optical fiber; and

positioning the endface relative to the semiconductor chip to maximize the magnitude of the light coupled into the optical fiber.

12. (original) A process as claimed in claim 6, further comprising securing the fiber in a ferrule surrounding the fiber in the feedthrough.

13. (original) A process as claimed in claim 6, wherein the step of detecting the polarization extinction ratio of light transmitted through the fiber comprises detecting a magnitude of light transmitted along a slow axis of the polarization-maintaining optical fiber and detecting a magnitude of light transmitted along a fast axis of the polarization-maintaining optical fiber, from the semiconductor chip.

14. (currently amended) A process as claimed in claim 6, wherein the step of axially rotating the endface of the fiber comprises plastically deforming a mounting structure that secures the optical fiber to the bench ~~package~~.

15. (currently amended) A process as claimed in claim 6, wherein the step of axially rotating the endface of the fiber comprises:

deforming a mounting structure that secures the optical fiber to the bench ~~package~~ until a desired polarization extinction ratio is detected; and then

further deforming the mounting structure such that when released, the mounting structure will hold the fiber in an orientation corresponding to the desired polarization extinction ratio.

16. (currently amended) A process as claimed in claim 6, wherein the step of securing the endface of the optical fiber to the ~~package~~ bench comprises bonding the optical fiber to a mounting structure.

17. (original) A process as claimed in claim 16, further comprising sealing around the fiber in the feedthrough.

18. (original) A process as claimed in claim 17, wherein the step of sealing around the fiber is performed before the step of axially rotating the endface of the fiber to improve the polarization extinction ratio.

19. (original) A process as claimed in claim 17, wherein the step of sealing around the fiber is performed after the step of axially rotating the endface of the fiber to improve the polarization extinction ratio.